System and Method for Knowledgeable
Node Initiated TCP Splicing

ABSTRACT

A system and method utilizes back-end nodes to
determine which node should handle an incoming requests and
then utilizes the front-end switch to splice one or more
connections between the client and the chosen node. Chosen
nodes can repeatedly handoff the connection to other nodes
to handle the client's requests.   The front-end switch
provides the initial client connection to back-end nodes in
a round-robin approach distributing initial connections
among the back-end nodes. A proxy application on the back-
end node accepts the connection, parses the request, and
determines which back-end node should handle the request.
If another back-end node should handle the request, the
back-end node currently connected to the client performs a
handoff to the target back-end node. The switch splices
the initial connection to a connection to the selected node
and modifies subsequent packet headers appropriately in
order to map the two connection states to one another.